REMARKS

Applicants have amended claims 27 and 28 and added new claims 58-60. Support for the amendment to claim 27 can be found in the specification at page 18, lines 1-4 and page 23, lines 10-11. Support for new claims 58-60 can be found in the specification at page 24, lines 13-17; page 13, lines 21-25; and page 27, lines 15-19.

Upon entry of the amendments, claims 27-29 and 58-60 will be currently pending and under examination. Reconsideration of this application is respectfully requested in view of the remarks below.

Claim Objections

The Examiner objected to claim 29 on the ground that it incorrectly recites the term "FOHa1/DLD3" for the hybridoma. See the Office Action, page 2, lines 6-8.

Applicants note that the incorrect term "FOHa1/DLD3" is recited in claim 28. Thus, the objection should be applied to claim 28, not claim 29. Applicants have amended claim 28 to correct the error and request withdrawal of this objection.

Rejection under 35 U.S.C. § 112 first paragraph

The Examiner rejected claim 28 as not being enabled. See the Office Action, page 3, lines 1-2. He stated that a declaration indicating that the hybridoma FOHa1/DLH3 (FERM BP-7171) has been deposited under the terms of the Budapest treaty is required. See the Office Action, page 3, lines 10-17.

Applicants submit herewith a declaration of availability as required by the Examiner. Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 112, second paragraph

The Examiner rejected claims 27-29 as indefinite. See the Office Action, page 4, lines 16-18. Specifically, according to the Examiner, the term "the solution" recited in claim 27 is indefinite, since it can refer to a frozen solution or a solution of the denatured protein. See the Office Action, page 4, lines 19-21. The Examiner also rejected claim 27 as incomplete for omitting steps of how the denatured lipoprotein is produced and stabilized. See the Office

Action, page 4, lines 19-21 and page 5, lines 1-8. The Examiner further rejected claim 28 as being in improper dependent form. No grounds were provided for rejecting claim 29.

Applicants have amended claim 27 to correct the deficiencies noted by the Examiner. Claim 28 requires reacting the stabilized denatured lipoprotein recited in claim 27 with a DLH3 antibody yielded by mouse-mouse hybridoma FOH1a/DLH3. Accordingly, the dependence of claim 28 from claim 27 is not improper. Applicants believe that claim 29, dependent from amended claim 27, is definite.

Rejection under 35 U.S.C. § 103(a)

The Examiner rejected claims 27 and 29 as being obvious over Belzer et al., U.S. Patent No. 3,632,473 (Belzer) in view of Gebski et al., U.S. Patent No. 5,783,400 (Gebski). See the Office Action, page 6, lines 22-23.

Amended claim 27 covers a method for producing stabilized denatured lipoprotein by freezing a solution containing lipoprotein to produce a frozen solution of lipoprotein. The frozen solution is subsequently melted to produce a denatured and stabilized lipoprotein and freeze-dried to produce a powder form.

According to the Examiner, Belzer teaches freezing and melting a solution containing lipoprotein to denature the lipoprotein and Gebski teaches stabilizing lipoprotein in plasma by lyophilizing the plasma. See the Office Action, page 7, lines 1-8. It is the Examiner's position that by combining the teachings of Belzer and Gebski, one of ordinary skill in the art could have produced stabilized denatured lipoprotein in the manner required in claims 27 and 29.

Belzer teaches denaturing lipoprotein by freezing and rapid thawing. Specifically, it teaches denaturing lipoproteins in plasma by storing the plasma at -20°C for 12 to 24 hours, followed by rapid thawing in water at 60°C to 70°C. See column 6, lines 57-60. Belzer clearly requires a rapid thawing step, following a freezing step, to denature lipoprotein. However, it makes no mention of stabilizing the lipoprotein. As Belzer does not disclose denaturing **and** stabilizing lipoprotein by freezing and melting as recited in claim 27, it does not teach or suggest the subject matter of claim 27.

The following comments about Belzer are believed to be in order. Belzer teaches that subjecting plasma to freezing and rapid thawing leads to flocculation and that the flocculation

contains denatured lipoprotein. According to Belzer, this flocculation is removed by filtration and the clear plasma thus obtained is used as a perfusate. See column 6, lines 62-68. Of note, the clear plasma in Belzer cannot contain coagulation factors as it is used as a perfusate to recirculate through an organ. See column 7, lines 1-2. In other words, not only does the flocculation contain denatured lipoprotein, it also contains coagulation factors. Thus, the denatured lipoprotein obtained using Belzer's method is different from the denatured lipoprotein obtained using the method of claim 27.

Gebski does not rectify the deficiencies of Belzer. It does not disclose denaturing and stabilizing **lipoprotein** by freezing and melting; it only teaches stabilizing **plasma** by lyophilizing it. Therefore, the combined teachings of Belzer and Gebski do not render claim 27 obvious. As claim 29 depends from claim 27, it is not rendered obvious by a combination of Belzer and Gebski for the same reasons.

New Claims 58-60

Applicants have added new claims 58-60.

Claims 58 and 59 depend from claim 27. Claim 60 recites the same steps as the method of claim 27, but includes an additional step of adding an anti-coagulating agent preceding the freezing step.

Accordingly, claims 58-60 are also not rendered obvious by the combined teachings of Belzer and Gebski for the same reasons set forth above.

CONCLUSION

Applicants respectfully submit that claims 27-29 and 58-60 as pending define patentable subject matter, and request allowance of all of the pending claims.

Enclosed is a $120 check for one-month extension fee. Please apply any charges or credits to deposit account 06-1050, referencing Attorney's Docket No. 13723-002001.

Respectfully submitted,

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